4/27/04-03572

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Michael F. Easley, Governor
William G. Ross Jr., Secretary

April 27, 2004

TO: Randy McElveen

FROM: David Lilley DBL

RE: Comments on the Human Health Risk Assessment portions of the Draft SWMU 360 RCRA Facility Investigation Report, MCB Camp Lejeune December, 2003

1. Page 6-6, last sentence: Region 4 does not mention using industrial PRGs as screening criteria for subsurface soil when considering an industrial scenario. The Region 4 guidance states: "Industrial screening values should be used for comparison to the subsurface soils data only for construction work scenarios". Please correct.

2. Appendix L, Table 2.2a: A few mistakes were found in a spot check of the Screening Toxicity Values in this table. The value for carbon disulfide should be 1.2E+05 ug/kg, not 7.2E+05 ug/kg, and the value for toluene should be 2.2E+05 ug/kg, not 5.2E+05 ug/kg. Although the final outcome is the same, all of the screening toxicity values in the screening tables should be checked for accuracy.

3. Appendix L, Table 2.3a: Please define "North Carolina Water Quality Criteria". Is this the same as the 2L?

4. Appendix L, Table 5.1: IRIS provides an oral RfD for acetophenone of 1E-01 mg/kg-day. Please use this value.

5. Appendix L, Tables 5.1 and 6.1: On page 6-30, it is pointed out that DENR recommended using the experimentally-derived oral absorption efficiencies obtained from Oak Ridge National Laboratory. This recommendation predates information in Exhibit 4-1 in the latest version of RAGS Part E (2003). In the future, please use the oral absorption efficiencies presented in RAGS Part E.

6. Appendix L, Table 5.2: Where did the RfC for tetrachloroethene come from? There must be a typo, a RfC of 4.0E-12 mg/m^3 would not yield an inhalation RfD of 1.7E-01 mg/kg-day. Please correct.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-733-4996 \ FAX 919-715-3605 \ Internet http://wastenotnc.org

7. Appendix L, Table 7.1.1 RME: The dermal intake for arsenic could not be reproduced using the equation and information found in Table 4.1.1. According to Appendix K, an ABS value of 0.03 was used, not the default value of 0.001% as claimed on this table. In addition to listing the default values, footnote 1 should refer the reader to Appendix K.

8. Appendix K: For organics, the derivation of DAD for water contact must include the calculation of DA_{event}, as described on page 3-4 of the 2003 version of RAGS Part E. Please incorporate this into the risk assessment.

9. Page 6-15, second paragraph: While I agree with the logic of eliminating the trespasser from the current exposure scenario, there is the potential for the fence to be breached or removed in the future, making the exposure pathway complete. However, since no chemicals were retained as surface soil COPCs, the risks posed by the potentially complete future exposure pathway were determined to be acceptable. Please change the wording in the second paragraph to reflect this.

10. Page 6-28, PEF equation: The constant 556 does not appear in the cited reference. Where did it come from?

11. Page 6-28: A road length of 172 m and a road width of 15.24 m equals a road area of 2,621 m^2, not 29,555m^2. Please correct.

12. Page 6-28: Since construction activities normally run 8 hours a day, T = 250 days x 8 hours/day x 3,600 seconds/hour = 7,200,000 seconds. Please correct.

13. Page 6-28: During construction activities, dump trucks and vehicles carrying construction materials would need to access the site and would not always be able to stay on existing streets and asphalt parking lots. Access by one car and one truck per day is an unrealistically low estimate of vehicle activity during construction. In the example given in the cited reference, 30 vehicles/day was used as an estimate on a 5 acre site. The number of vehicles/day estimated on this site should be much closer to EPA's example than the numbers used in this risk assessment. Please correct.

14. Page 6-28: In the cited reference, EPA also provides guidance for PEF adjustment due to "Wind Erosion and Other Construction Activities". These calculations should be added to this risk assessment.

DL/dl/HumanHealthRA1/18,19

NCDENR
North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Michael F. Easley, Governor
William G. Ross Jr., Secretary

April 27, 2004

TO: Randy McElveen

FROM: David Lilley DBL

RE: Comments on the Ecological Risk Assessment portions of the Draft SWMU 360 RCRA Facility Investigation Report, MCB Camp Lejeune December, 2003

1. Page 7-13: The mistake in the 2002 NCDENR SLERA guidance that recommends the use of one half the maximum SQL as a proxy concentration for non-detects was pointed out and corrected in my June 18, 2003 comments on the Draft Master Project Plans for the RCRA projects. When comparing non-detects to screening values, the maximum detection limit should be used as the proxy concentration. Please correct.

   Please note: The 2002 NCDENR SLERA guidance has been updated an is available at http://www.wastenotnc.org/SFHOME/SLERA.HTM.

2. Table 7-5: The elimination of COPCs based on low frequency of detection (< 5%) is based on outdated human health guidance and should not be used in ecological risk assessments in the future.

DL/dl/word/Eco2RA.doc/66

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-733-4996 \ FAX 919-715-3605 \ Internet http://wastenotnc.org